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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/526,127	03/15/2000	Yoshihisa Usami	Q58292	9460

7590

06/07/2002

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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1774

10

DATE MAILED: 06/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T.D-10

Office Action Summary	Application No.		Applicant(s)	
	09/526,127		USAMI ET AL.	
	Examiner		Art Unit	
	Lawrence D Ferguson		1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment mailed March 13, 2002.

Claims 1 and 11 were amended and claims 1-20 are pending.

Claim Rejections - 35 USC § 103(a)

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raychaudhuri et al. (EP 0747895 A2) in view of Hurditch et al (U.S. 5,952,073) for the reasons set forth in paragraph 3, in the previous office action, mailed September 13, 2001. Regarding the added limitation to claim 1 and 11 with the limitation of claim 10, 'a laser beam having a wavelength of 600 to 700 nm', the prior art of Hurditch includes such limitations by disclosing a digital compact disk using a laser wavelength of about 630-650 nm (column 2, line 16).

Response to Arguments

4. Applicant's arguments of rejection under 35 USC 103(a) as unpatentable over Raychaudhuri et al. (EP 0747895) in view of Hurditch et al. (U.S. 5,952,073) have been considered but are unpersuasive. Applicant argues that the present invention is not obvious over the disclosures of Raychaudhuri in view of Hurditch. Applicant argues unlike the definitions of Applicants' invention, the thickness discussed in Raychaudhuri is not for the recording layer, but rather is for the combination of the recording layer and the reflecting layer. Examiner disagrees because the prior art discloses the thickness of the recording layer on page 6, line 3 and additionally discloses the thickness of the individual layers can be adjusted (page 5, line 53). The thickness of the recording layer has a direct effect on the first minimum reflectance. Therefore it would be obvious to optimize the thickness to gain improved minimum reflectance as taught by Raychaudhuri. Applicant argues that the disclosures of Raychaudhuri relate to a CDR using a laser wavelength of 180 with a R_{minimum} of greater than 780. Applicant argues that unlike the claimed invention, the thickness discussed in Raychaudhuri is not for the recording layer but for the recording and reflecting layer. This is not true because Raychaudhuri contemplates the thickness of the sublayer as well (page 5, line 53). Applicant argues the difference is illustrated in Applicant's figure of R_{min} is about 50% and R_{max} is 60%, where applicant's invention has no concern about the value of R_{min} per se. It does not matter if the reference has different features not pointed out by instant invention. As long as the instant invention and features are supported by the reference, the reference reads on the instant claims, other concerns are not

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important. Applicant argues that the teachings of Raychaudhuri are not concerned with the thickness of the CD-R at which first minimum is observed and Raychaudhuri do not relate to how to determine thickness of the recording layer alone. This is not true because the recording dye layer thickness is contemplated particularly at page 5 where adjustments of thickness compositions for the individual sublayers and first minimum are achieved. Applicant notes that the notable difference between the reference and application is that the thickness of the recording dye layer of Applicant's DVD-R is determined with consideration of an optical path while Raychaudhuri reference relates to the thickness of the combination of recording layer and reflecting layer which are determined to give high R_{min} and $R_{maximum}$. Applicant also notes Hurditch describes the general conditions for DVD-R but does not teach features discussed above. It should be noted that the Raychaudhuri reference reads on a recordable element that can include different types of elements including DVD. Hurditch specifically teaches use of recording dye layers in CD-R and DVD-R. The material used in one element can be used in the other element. So the examiner's use of the Hurditch reference and Raychaudhuri reference to show Applicant's invention is certainly relevant. Applicant's optical path is merely a calculation which depends on the light traveling length and the refractive index. Therefore this can only be seen as a calculation, which one of ordinary skill in the art can determine through routine experimentation. It should also be noted that the recording layer of the instant applicant has a thickness of 55 to 95 nm as applicant describes on page 5. The Hurditch reference describes the dye recording layer as having a thickness in the range of 50-160 nm (column 2, lines 45). The Hurditch reference also teaches that in DVD-R recording the laser wavelength is 630 to 650 nm. Therefore the Raychaudhuri reference teaches the conventionality of finding the minimum for

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reflectance. The principle of finding the minimum is not new and not limited to CD-R elements. Finally, the combination of Raychaudhuri and Hurditch is proper because Raychaudhuri teaches how to determine thickness and Hurditch teaches specifically recording dye layers having specific thickness amounts and using wavelengths at specific levels. The combination of the two references would lead one of ordinary skill in the art to the recordable digital video disc as instantly claimed.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM - 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia

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Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for

After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351.

ZDF

Lawrence D. Ferguson
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

Cynthia H. Kelly